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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,202	02/19/2004	Jeffrey T. Cheung	01SC135CO1	6694

7590 05/28/2004
Richard S. Koppel
KOPPEL, JACOBS, PATRICK & HEYBL
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Thousand Oaks, CA 91360

EXAMINER

JONES, JUDSON

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/783,202

Applicant(s)

CHEUNG ET AL.

Examiner

Judson H. Jones

Art Unit

2834

-- The MAILING DATE of this communication appears n the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33,43 and 48-58 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8,15-18,43,48-54,56 and 57 is/are rejected.
- 7) ☒ Claim(s) 9-14,19-33,55 and 58 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>021904</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 10-13, 15, 16 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Konotchick 5,818,132 A (of record). Konotchick figure 15 and column 11 lines 36-67 discloses a dynamic magnet system with a support structure 1 and a plurality of magnets 2 in polar opposition (line 40 “They are suspended by polar opposition ...”) In regard to the limitation of “at least some of the magnets having mutually different properties,” the difference in polarity is a mutually different property.

In regard to claim 2, while the magnets of Konotchick appear to be similar except for the polarity, no manufacturing operation creates identical products. The magnets will vary in strength around a bell curve as described in statistical textbooks.

In regard to claim 3, the dimensions of the magnets will vary around a bell curve as described in statistical textbooks. As for the limitation of “substantially equal size,” some magnets will fall at the same position on the bell curve and will be substantially equal.

In regard to claim 4, other magnets will be at opposite extremes of the bell curve and will have different sizes.

In regard to claim 5, some magnets will fall at the same position of a bell curve representing the magnetic strength of the magnets.

Art Unit: 2834

In regard to claim 10, see coil 98 in Konotchick figure 1.

In regard to claims 11 and 43, see Konotchick column 2 lines 23-29 where support structures made of glass or Teflon are taught.

In regard to claim 12, see Konotchick column 1 lines 35-39. Alarm systems and communications devices have operating systems.

In regard to claim 13, see magnets 110, 111 in Konotchick figure 15.

In regard to claims 15 and 16, see Konotchick figure 15.

Claims 6-8, 17, 18, 48-54, 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konotchick in view of Soloman et al. 5,775,169 A (of record, cited by Applicant). Konotchick discloses the dynamic magnet system but does not disclose ferrofluid bearings. Soloman et al. teaches using ferrofluid as a combination bearing and seal in column 3 lines 39-46. Since Konotchick does not disclose bearings and since Soloman et al. and Konotchick are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized ferrofluid bearings and seals in order to increase the efficiency of the dynamic magnet system and to protect the system from contaminants and thus increase the life of the system. In regard to the critical angle of displacement for the magnets from a horizontal static position is determined by the sticking friction between the magnet element and the fixed structure of the dynamic magnet system. Reducing the sticking friction of the device would reduce the critical angle of displacement for the system and very good ferrofluid bearings would reduce the critical angle of displacement to less than one degree and to less than 10 minutes.

In regard to claim 49, while the magnets of Konotchick appear to be similar except for the polarity, no manufacturing operation creates identical products. The magnets will vary in strength around a bell curve as described in statistical textbooks.

In regard to claim 50, the dimensions of the magnets will vary around a bell curve as described in statistical textbooks. As for the limitation of “substantially equal size,” some magnets will fall at the same position on the bell curve and will be substantially equal.

In regard to claim 51, other magnets will be at opposite extremes of the bell curve and will have different sizes.

In regard to claim 52, some magnets will fall at the same position of a bell curve representing the magnetic strength of the magnets.

In regard to claim 54, see Soloman et al. column 2 lines 4-8 where the phrase “virtually without abrasive friction” is used. Virtually without abrasive friction is viewed as meeting the claimed viscosity being less than 10 centipoise.

In regard to claim 56, see elements 98 in Konotchick figure 15.

In regard to claim 57, see Konotchick column 1 lines 35-39. Alarm systems and communications devices have operating systems.

Allowable Subject Matter

Claims 9, 14, 19-33, 55 and 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:
The prior art of record does not disclose or teach a ferrofluid comprising a light mineral oil

Art Unit: 2834

mixed with isoparaffinic acid in combination with the other features of claims 9, 26, 41 and 55.

The prior art of record does not disclose or teach magnets for a dynamic magnet system having multiple oscillation modes relative to the support structure in combination with the other features of claims 14, 44, 19-32 and 58. The prior art of record does not disclose or teach an even number of movable magnets in combination with the other features of claim 33.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H. Jones whose telephone number is 571-272-2025. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JHJ 5/25/2004



THANH LAM
PRIMARY EXAMINER